

09/750504

Abstract of the Disclosure

In a III – V semiconductor laser diode, a spacer layer is used between an n-doped cladding layer and an undoped optical confinement layer to mitigate crystal defects that would otherwise be formed at the interface between the layers due to the memory effect associated with doping the cladding layer. The spacer layer is formed of compatible III – V semiconductor compounds and may be either a single layer or a plurality of sublayers. The spacer layer of the present invention also has application to other semiconductor devices where the memory effect causes crystal defects at the interface between two differently doped layers.

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